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EXAMINER	
TURNER, KATHERINE ANN	
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1795	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,334	SUZUKI ET AL.	
	Examiner	Art Unit	
	Katherine Turner	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *14-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/14/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-13 in the reply filed on January 14, 2009 is acknowledged. The traversal is on the ground(s) that the subject matter of all claims is sufficiently related that a thorough search for the subject matter of any one group of claims would encompass a search for the subject matter of the remaining claims, thus a search and examination of the entire application could be made without serious burden. This is not found persuasive because Group I is drawn to a disassembly method of a fuel cell by heating an adhesive layer to soften or melt it through an external heating means, and Group II is drawn to a disassembly method of a fuel cell by removing heat from an adhesive layer to contract the adhesive. The common technical feature being a fuel cell disassembly method, which is shown in the prior art Maston et al. (WO 03/077341). There would be serious burden in examining these two groups together, because the scope of the invention is different, Group I drawn to providing heat to heat an adhesive, and Group II drawn to removing heat, such as cooling of freezing, an adhesive. The search for Group I would be drawn to the heating, melting and softening of an adhesive, while the search for Group II is drawn to cooling, freezing and contracting of an adhesive.

The requirement is still deemed proper and is therefore made FINAL. Accordingly claims 14-25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.01.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "11" and "12" (Figures 13 and 20). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims Interpretation

4. The means plus function limitations in claims 1-10 and 12-13 do not invoke 35 USC 112, sixth paragraph. Claims 1 and 13 recite, "external heating means to apply

heat." Claims 1-6, 8, 10 and 12-13 recite, "external heating means." Claims 6-9 recite, "external force application means."

A claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

(A) the claim limitations must use the phrase "means for " or "step for;"

(B) the "means for " or "step for " must be modified by functional language; and

(C) the phrase "means for " or "step for" must not be modified by sufficient structure, material, or acts for achieving the specified function.

Claims 1-10 and 12-13 do not use the phrase "means for" or "step for;" and claim 7 is modified by "a wedge-like member" which is sufficient structure for achieving the specified function.

See MPEP 2181.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 5-6, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Takase et al. (US 2007/0134536).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Takase et al. discloses a fuel cell disassembly method of disassembling a fuel cell where a pair of separators (6, 7) are arranged across an electrode assembly are bonded to each other via an adhesive layer (8), the fuel cell disassembly method comprising: a separation facilitating step of a pair of pressure rollers (52) with built-in heaters (58) applying heat to the adhesive layers (8) to soften or melt and thereby facilitate separation of the pair of separators (6, 7) from each other (figures 21 and 22; paragraphs 112-115).

Regarding claim 2, Takase et al. discloses the pair of pressure rollers (52) with built-in heaters (58) being in contact with the separators (6, 7) (figures 21 and 22; paragraphs 112-115).

Regarding claim 5, Takase et al. discloses the temperature is set to be not less than a softening temperature or a melting temperature of the sealing members (8) but less than an allowable temperature limit of the electrolyte membrane (3) and that the MEA (2) is collected for recovery and recycle (paragraph 112).

Regarding claim 6, Takase et al. discloses the pair of pressure rollers (52) with built-in heaters (58) that are applying heat to the adhesive layers (8) while applying an

external force to the separators (6, 7) with the force set to cause warpage of the separators (6, 7) in directions away from each other (paragraph 112).

Regarding claim 11, Takase et al. discloses the adhesive layer (8) around the periphery is a sealing member for bonding the separators to each other and functions to prevent direct contact of oxygen with hydrogen (Applicant's prevent leakage of gas fed to electrode assembly) on the peripheries of the respective electrodes (figures 21 and 22; paragraphs 2 and 112-115).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-5 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maston et al. (US 2003/0186107) in view of Schmid et al. (US 6,080,503) and Face, Jr. et al. (US 6,030,480).

Regarding claim 1, Maston et al. discloses a fuel cell disassembly method of disassembling fuel cells (24, 44) in a fuel cell stack, where each cell of the fuel cell component are bonded together using an epoxy adhesive, the fuel cell disassembly method comprising: a separation facilitation step of heating the adhesive layer at 90 to 130 ºC, so as to melt the adhesive layer and thereby facilitate separation of the fuel cell components (figures 1-8; paragraphs 70, 90, 91 and 99), but is silent as to the pair of separators being arranged across an electrode assembly being bonded to each other via an adhesive layer and to the rise in temperature coming from an external heating means.

Schmid et al. teaches a PEM fuel cell stack where a pair of separator plates (11 and 12) are arranged across a MEA (5) being bonded to each other via an ad, around the perimeter of the separator plates circumscribing the electrochemically active area (40) of the MEA (5), the adhesive (50) forming a seal around each manifold opening for the fluid inlet and outlets, the adhesive (50) forming a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells, and the desire for easier stack disassembly to remove and repair individual cells, because this approach provides a simplified PEM stack design and reduced part count, and associated manufacturing and cost benefits, also the sealing is generally more reliable with this approach (figures, 2, 3a-3d, 4a-4c, and 5b; column 3, lines 1-24 and 53-61; column 5, lines 1-64; column 6, lines 22-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the PEM fuel cell stack where a pair of separator plates

(11 and 12) are arranged across a MEA (5) being bonded to each other via an ad, around the perimeter of the separator plates circumscribing the electrochemically active area (40) of the MEA (5), the adhesive (50) forming a seal around each manifold opening for the fluid inlet and outlets, the adhesive (50) forming a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells, the adhesive layer (50) being Matson et al.'s removable adhesive, because Schmid et al. teaches that this approach provides a simplified PEM stack design and reduced part count, and associated manufacturing and cost benefits, also the sealing is generally more reliable with this approach and the desire for easier stack disassembly to remove and repair individual cells (figures, 2, 3a-3d, 4a-4c, and 5b; column 3, lines 1-24 and 53-61; column 5, lines 1-64; column 6, lines 22-58), and because Matson et al. discloses that the removable epoxy adhesive facilitates in fuel cell stack dismantlement, repair and upgrading (paragraph 91).

Maston et al. discloses heating the adhesive layer at the curing temperature between room temperature and 60 ºC to bond it, and heating the adhesive layer at 90 to 130 ºC, so as to melt the adhesive layer and thereby facilitate fuel cell stack dismantlement, repair and upgrading (figures 1-8; paragraphs 70, 90, 91 and 99), but is silent as to the location of the heating means.

Face, Jr. et al. teaches a stacked assembly with thermoplastic adhesive layers (16, 20 and 24) between two press members (10 and 12) which are shaped to accommodate the stack and heating the layers with second press member (10) that is heated by resistance heating element (38) to a controlled temperature that melts the

adhesive but does not exceed the Curie temperature of other layers in the stack, and that this method of melting adhesive layers in a stack provides a means to raise the stack temperature above the melting point of the adhesive material in a controlled fashion where heat is conductively transferred from a heating element to each of the layers in order to raise the temperature of each of the layers above the melting point of the adhesive and it is automated (figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Face, Jr. et al.'s two press member (10 and 12) shaped to accommodate the fuel cell stack in order with the second press member (10) that is heated by resistance heating element (38) to a controlled temperature that melts the adhesive, because Face, Jr. et al. teaches that this method of melting adhesive layers in a stack provides a means to raise the stack temperature above the melting point of the adhesive material in a controlled fashion where heat is conductively transferred from a heating element to each of the layers in order to raise the temperature of each of the layers above the melting point of the adhesive and it is automated (figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40).

Regarding claim 2, Maston et al. in view of Face, Jr. et al. teaches the second press member (10) heated by resistance heating element (38) shaped to accommodate the fuel cell stack, thus close to at least one of the separators (Face, Jr. et al. figures

3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40).

Regarding claim 3, Maston et al. in view of Face, Jr. et al. teaches the second press member (10) heated by resistance heating element (38) shaped to accommodate the fuel cell stack, thus covering the gap between the pair of separators (Face, Jr. et al. figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40).

Regarding claim 4, Maston et al. in view of Face, Jr. et al. teaches the second press member (10) heated by resistance heating element (38) shaped to accommodate the fuel cell stack, thus located along the adhesive layer (Face, Jr. et al. figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40).

Regarding claim 5, Maston et al. discloses heating the adhesive layer at 90 to 130 ºC, above the curing temperature between room temperature and 60 ºC, so as to melt the adhesive layer and thereby facilitate fuel cell stack dismantlement, repair and upgrading (figures 1-8; paragraphs 70, 90, 91 and 99), but is silent as to this heat being lower than an upper temperature limit of the electrode assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the heat being lower than the upper temperature limit of the electrode assembly, because Maston et al. discloses the desire to repair and upgrade the fuel cells (paragraph 91), thus the heat should not be above upper temperature limit

of the electrode assembly in order to keep the electrode assembly in tact for repair and upgrading.

Regarding claim 11, Maston et al. in view of Schmid et al. teaches the adhesive layer (50) is arranged around the around the perimeter of the separator plates circumscribing the electrochemically active area (40) of the MEA (5) and has a sealing function provides a gas and liquid-tight seal, and that seals are used to prevent leakage of fluid streams in the operating stack, the adhesive layer (50) around the fluid inlet manifold openings seal to prevent leakage of a gas fed to the MEA (5) (Schmid et al. figures, 2, 3a-3d, 4a-4c, and 5b; column 2, lines 7-15; column 3, lines 53-61; column 6, lines 22-58).

Regarding claim 12, Maston et al. discloses a separation facilitation step of heating a removable epoxy adhesive layer at 90 to 130 ºC, so as to melt the adhesive layer and thereby facilitating fuel cell stack dismantlement, repair and upgrading (paragraph 91). Maston et al. in view of Schmid et al. teaches a PEM fuel cell stack wherein a plurality of fuel cells are layered, and the adhesive layer (50) forming a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells (Schmid et al. figures, 2, 3a-3d, 4a-4c, and 5b; column 5, lines 35-40; column 8, lines 21-67), but is silent as to the step of separating the adjacent separator plates (11 and 12) at the interface between the individual cells by applying heat to soften or melt the inter-cell adhesive layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a removable epoxy adhesive layer as the adhesive layer

(50) which forms a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells and to heat that removable epoxy adhesive layer to melt it and thereby facilitate separation of the adjoining fuel cells, because Matson et al. discloses that this adhesive and melting method facilitates fuel cell stack dismantlement, repair and upgrading (paragraph 91).

Regarding claim 13, Maston et al. discloses a fuel cell stack disassembly method of disassembling a fuel cell stack, the fuel cell stack disassembly method comprising: a separation facilitation step of heating the adhesive layer at 90 to 130 ºC, so as to melt the adhesive layer and thereby facilitate separation of the fuel cell components (figures 1-8; paragraphs 70, 90, 91 and 99), but is silent as to the inter-cell adhesive layer.

Schmid et al. teaches a PEM fuel cell stack where a pair of separator plates (11 and 12) are arranged across a MEA (5) being bonded to each other via an ad, around the perimeter of the separator plates circumscribing the electrochemically active area (40) of the MEA (5), the adhesive (50) forming a seal around each manifold opening for the fluid inlet and outlets, the adhesive (50) forming a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells, and the desire for easier stack disassembly to remove and repair individual cells, because this approach provides a simplified PEM stack design and reduced part count, and associated manufacturing and cost benefits, also the sealing is generally more reliable with this approach (figures, 2, 3a-3d, 4a-4c, and 5b; column 3, lines 1-24 and 53-61; column 5, lines 1-64; column 6, lines 22-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the PEM fuel cell stack with adhesive (50) forming a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells, to utilize a removable epoxy adhesive layer as the adhesive layer (50) which forms a sealing bond between the adjacent separator plates (11 and 12) at the interface between the individual cells and to heat that removable epoxy adhesive layer to melt it and thereby facilitate separation of the adjoining fuel cells, because Schmid et al. teaches that this approach provides a simplified PEM stack design and reduced part count, and associated manufacturing and cost benefits, also the sealing is generally more reliable with this approach and the desire for easier stack disassembly to remove and repair individual cells (figures, 2, 3a-3d, 4a-4c, and 5b; column 3, lines 1-24 and 53-61; column 5, lines 1-64; column 6, lines 22-58), and because Matson et al. discloses that the removable epoxy adhesive facilitates in fuel cell stack dismantlement, repair and upgrading (paragraph 91).

10. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maston et al. (US 2003/0186107) in view of Schmid et al. (US 6,080,503) and Face, Jr. et al. (US 6,030,480) as applied to claims 1-5 and 11-13 above, and further in view of Tajima (US 2003/0121601).

Regarding claim 6-10, Maston et al. discloses heating the adhesive layer at the curing temperature between room temperature and 60 ºC to bond it, and heating the adhesive layer at 90 to 130 ºC, so as to melt the adhesive layer and thereby facilitate

fuel cell stack dismantlement, repair and upgrading (figures 1-8; paragraphs 70, 90, 91 and 99). Maston et al. in view of Face, Jr. et al. teaches the second press member (10) heated by resistance heating element (38) shaped to accommodate the fuel cell stack (Face, Jr. et al. figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40), but is silent as to the external force means.

Tajima teaches a disassembling method for two layers, a support member (3) and a display unit (1), with a disassembling apparatus by heating an adhesive layer (2) so as to soften or melt the adhesive layer and thereby facilitate separation of the two layers, the heating means is a cutting unit (12) that is heated through a heat control circuit, the cutting unit is located between the two layers along the adhesive layer (2), and while the cutting operation of the adhesive member (2) is still maintained a separating unit (13) with a wedge shape at the lower end is inserted between the support member (3) and display unit (1) with a force is applied for separating the two layers, because this method safely separates two layers without breakage, and it is furthermore rendered possible to recycle the thus separated layers (paragraphs 30-32, 40, 51-52, 88-89, 94 and 98).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a separating unit (13) with a wedge shape at the lower end as part of the two press member (10 and 12) heating apparatus and to insert the wedge shape between the separator plate layers with a force being applied for separating the two layers while the heating element (38) is heating the second press

member (10), because Tajima teaches that this wedge separation method safely separates two layers without breakage, and it is furthermore rendered possible to recycle the thus separated layers (figure1; paragraphs 30-32, 40, 51-52, 88-89, 94 and 98).

Regarding claims 6-8 and 10, Maston et al. in view of Face, Jr. et al. and Tajima teaches a separating unit (13) with a wedge shape at the lower end as part of the two press member (10 and 12) heating apparatus and to insert the wedge shape between the separator plate layers with a force being applied for separating the two layers (Applicant's in a direction of mutually parting the pair of separators) while the heating element (38) is heating the second press member (10) (Face, Jr. et al. figures 3a-8; column 4, lines 31-67; column 5, lines 1-33; column 6, lines 1-30; column 7, lines 36-67; column 8, lines 1-40) (Tajima figure 1; paragraphs 30-32, 40, 51-52, 88-89, 94 and 98).

Regarding claim 9, Maston et al. in view of Schmid et al. teaches separator plates with the edges of the separator plates extending past the catalytic area of the MEA (Applicant's extension of the separators) (Schmid et al. figures 3a-3d), and Maston et al. in view of Tajima teaches the heated cutting unit (12) applying heat to the adhesive layer while the separating unit (13) with a wedge shape at the lower end is inserted between the separator plate layers with a force is applied for separating the two layers (Applicant's in a direction of mutually parting the pair of separators) (Tajima figure 1; paragraphs 30-32, 40, 51-52, 88-89, 94 and 98). The insertion of the separating unit (13) with a wedge shape is at the edges of the separator plate where the adhesive is and where the edges of the separator plates extending past the catalytic area of the

MEA (Applicant's extension of the separators), thus the force is applied to an extension of the separators.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-2, 6, and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-87 of copending Application No. 10/577,987. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 1, claims 1-87 of copending Application No. 10/577,987 disclose a disassembly method of disassembling a fuel cell where a pair of separators are arranged across the electrode assembly with a sealing member along the periphery in a

gap between the pair of separators (claim 1), said fuel cell disassembly method comprising: a separation facilitation step of heating the sealing member to soften or melt the sealing member (claim 57) and thereby facilitate separation of the pair of separators from each other, but is silent as to the sealing member being adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the sealing member is adhesive, because claims 1-87 of copending Application No. 10/577,987 disclose the sealing member needing to be melted in order to facilitate disassembly, thus adhere the plates together (claim 57-59).

Regarding claim 2, claims 1-87 of copending Application No. 10/577,987 disclose the rollers with a heater function apply heat and pressure to the separators (Applicant's in contact with) along a line of the sealing member (claim 59).

Regarding claim 6, claims 1-87 of copending Application No. 10/577,987 disclose the rollers with a heater function apply heat and pressure to the separators with the pressure being applied to give warpage of the separators in directions away from each other (claims 55 and 59).

Regarding claim 11, claims 1-87 of copending Application No. 10/577,987 disclose a sealing member formed along the periphery of the electrode assembly in the gap between the pair of separators (claim 36), but is silent as to the prevention of leakage of gas fed to the electrode assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the sealing member would prevent the leakage of gas fed to the electrode assembly, because the sealing

member seals along the periphery of the electrode assembly in the gap between the pair of separators (claim 36).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Correspondence/Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine Turner whose telephone number is (571)270-5314. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571)272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. T./
Examiner, Art Unit 1795

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